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ABSTRACT

Suggestopedia, the psycholinguistic second language teaching methodology of Georgi Lozanov, has received both favorable and unfavorable evaluations from well-known scholars in the field of language learning. Some suspicious views by Western scholars may be due to the paucity of interpretable scientific evidence for the method's claims. An examination of the underlying principles of the method suggests that they are valid and accurate in light of current theory on the nature of learning, language acquisition, and memory. While the claims that the method induces "superlearning" or "hypermnesia" need more substantial empirical validation, theory on learning may suggest that Lozanov's method should achieve better than average results in learning. (Author/MSE)

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Lozanov's Suggestopedy:
A Psycholinguistic Analysis of its Theory and Praxis

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In the last decade, Suggestopedy and Superlearning techniques have received considerable mention in discussions of second language acquisition and language teaching methodology. Discussions in the West have concentrated primarily upon the method's proponent's claims of amazing successes in the speed and facility of L2 acquisition. Examples include Ostrander and Schroeder's (1975: 15 in Wagner & Tilney, 1983) claim that "the speed of learning was increased from 5 to 50 times, and that this required virtually no effort on the part of the student." Additionally, Borden (1976: 3-15) reported that "students in Iowa schools learned a full year of Spanish in 10 days (Wagner & Tilney, 1983). Georgi Lozanov, the Bulgarian psychiatrist who originated and developed the Suggestopedy method describes the results of a 24 day's foreign language course according to the following claims:

(1) Students assimilate on the average more than 90% of the vocabulary, which comprises 2,000 lexical units per course. (2) Students speak within the framework of the whole essential grammar. (3) Previously unseen texts can be read. (4) Students are not afraid to talk to foreigners who speak the same language. (5) Students are eager to continue studying the foreign language (1982: 159).

These claims, which are taken seriously by a number of well-respected theorists, are generally explained in "psychological terms" of one genre or another. Bancroft (1978) has concentrated on the aspect from which the method takes its name, i.e., the power of <u>suggestion</u> to tap learner's physical

and mental reserve capacities. For Bancroft, the success of Suggestopedy depends on a conception of "authority" which emanates from the teacher and is perceived by the learners. Properly manipulated by the teacher, suggestopedy's principles (discussed below) may permit lowering of learner's desuggestive barriers, consequently releasing memory and creativity resources deep within the human mind. Stevick (1976: 155; 1980: 229-259) has suggested that the method's merits are rooted in its therapeutic (a la Berne, 1964) nature. "Learned limitations and anxieties remaining within the learner from previous educational experiences are desuggested. Thus, a more relaxed receptive and enjoyable learning state is induced. In a similar vein, Krashen (1983) contends that the method may indeed "lower the affective filter, and thus facilitate nonprimary language acquisition (see Oller, 1982). Lozanov, himself, (1956; 1976; 1979; 1982 in Blair 1982), describes the method's purported achievements in terms of the science of Suggestology and Freudian Psychoanalysis. Essentially, "Suggestopedy, as a pedagogical system combines the curative techniques from desuggestive-suggestive communication psychotherapy with psychorelaxation-inducing techniques, and with psycho-stimulating and liberating aspects of art and music" (Lozanov, 1982: 150-51). There are two primary premises underlying Lozanov's approach. The first is that learners are 'complex personalities' (in the Freudian interpretation of the term). Depending on the particular disposition of a personality, at a particular time, and, the properties of the personality, at a particular time, and, the properties of the personality (accumulated through its social learning history) the personality will strive to choose--both rationally and intuitively--which stimuli will be

associated (with each other and with prior knowledge), condensed, coded, symbolized and amplified. Stimuli are received not only on a conscious level, but on 'various and numerous levels of para consciousness.' The second premise is that conscious-paraconscious stimuli can be well organized, psychologically orchestrated, and harmonized with the personality--thus comprising 'suggestion' (in its technical sense) in its most positive and manifest form. Teachers may exploit this type of utilization pedagogically, thus freeing usually-suppressed memory reserves, creative capacities and sympathetic nervous system functions. (Lozanov, 1982: 146-47).

2. Criticisms of Suggestopedy

Despite the aforementioned claims for this method's great successes in language teaching and learning and, despite psychologically-based explanations for its successes, Suggestopedy appears to be more widely discussed than accepted and implemented in Western academia. (This is apparently true even though a number of top multi-national corporations, organizations, and U.S. Government agencies advocate use of the method in their schools and seminars, e.g., UNESCO, AT&T, U.S. State Department, to name a few. Rose, 1985: 120). Some of the apparent suspicion--on the part of academic educators may emanate from, as Lozanov himself suggests, "the social suggestive norm which teaches us that it is impossible for us to increase memorization in volume and soundness, and to have more control over mental and physiological functions" (1982: 149).

Some sophisticated educators may agree that the achievement of the above would be highly desirable but may be reluctant to break with more traditional pedagogy, and may not understand how the talk which surrounds the methodology represents anything more than a lot of irrelevant scientific or "dated" psychological rhetoric about an unusual method of questionable effectiveness (e.g. Scovel, 1979).

Such a view may be reinforced by a paucity of empirical investigations of methodological effectiveness (e.g. Scovel, 1979) and, of more scientific, psycholinguistic and neurolinguistic Discussions of the method's principles, techniques and why they may be felicitous. In addition to this paucity, a negative or suspicious view may be fostered by empirical studies reporting negative findings, such as Wagner;s and Tilney;s (1983).

Their study attempted to investigate the validity of claims that superlearning techniques (adaptations of techniques from Suggestopedy) would induce (1) hypermnesia or superlearning, and (2) alpha brainwave production in language learners. Wagner and Tilney claim that even though "scrupulous care to preserve superlearning methodology was taken in this investigation, a no-contact control group which learned German vocabulary in a traditional classroom setting scored higher on an acquisition test than did two experimental groups." Their method, however, clearly did not investigate Suggestopedy--the method under discussion here--because no "authoritarian teacher", which is central to Lozanov's desuggestive-suggestive method was employed. Wagner and Tilny used only taped cassettes of "lessons" with each experimental group. It might also be mentioned that their inability to monitor

significant levels of alpha brainwave production may have been related to their methodology. Learners were not monitored in an authentic, Suggestopedy learning experience, but instead--one at a time by appointment in a laboratory. This may have provided significant interference, and therefore, secondary variation. The most important discrepancy, however, was probably their failure to monitor more than the T3 and T5 left cortical areas of subjects' brains. (Those areas corresponding to Broca's and Wernicke's areas--which are involved in mechanical speech processing and production). While a subject is passively listening to a taped list of foreign language lexical items and baroque music, one might more correctly expect any alpha brainwave production to occur in the right hemisphere. Nobel Laureate Robert Ornstein found alpha brainwaves in the right hemisphere of a subject solving a math problem, while beta brainwave activity was monitored in the left hemisphere (Rose, 1985: 11-14). One cannot be certain how much Wagner and Tilney's results were due to their own investigation's methodology.

A last source of suspicion towards Suggestopedy may be the difficulty which Western scholars and scientists have in reading and interpreting the work of their eastern European counterparts. One example is Scovel's (1979) scathing review of Lozanov's Book Suggestology and Outlines of Suggestopedy (1979). There, Scovel criticized Lozanov severely for presenting bogus and inaccurate scientific documentation for his method's claims. The apparent problem for Scovel was that Eastern European scientists do not follow the same ordered detailed style of reporting scientific investigations and findings that American scientists consider so important for permitting the scrutiny of

the greater scientific community.

Elsewhere in his review (pp 255-56) Scovel notes "a grave sense of duty (on the part of the academic community) in giving Suggestology a thorough and attentive review as a pedagogical method." I agree with Scovel on this point. Based on the number of acclaimed successes in private schools, corporations and government agencies (Rose, 1985; Stevick, 1980) and the attention which this method has received in a number of recent teacher-training books (e.g., Oller and Richard Amato, 1983; Stevick, 1976; Celce-Murcia and McIntosh, 1979), Western scholars do have a responsibility to investigate the utility of Lozanov's method. Carefully-controlled empirical studies and replications are in order. Dissatisfaction with currently available literature's explanations of Suggestopedy's efficacy as a psychotherapeutic event, or through incomprehensible Eastern European literature might be somewhat alleviated by further literary research on the part of Western scholars. Lozanov's method, its techniques and principles might be examined in light of what Western scholars understand about the nature of the learner, and his or her interaction with types of learning environments.

II. 1. Lozanov's principles

As one small effort in the direction of the latter suggestion, the remainder of this paper will address--by means of current Western literature on the psychophysiological nature of language, language learning, and memory, --3 psychophysical principles upon which Lozonov (1982:152) bases his

principles of Suggestopedy.

Those principles (p. 150-53) may be condensed and outlined as follows:

(1) The ultimum learning experience (suggestopedy) will involve global participation of the brain.

(2) It will, furthermore, allow for the "naturally occurring" simultaneous processes of analysis and synthesis.

(3) Suggestopedy, as it recognizes the simultaneous and indivisible participation of the conscious and paraconscious process, will carefully control incoming peripheral perceptions and emotional stimuli, while exploiting all other psychophysiological stimuli.

In essence, Lozanov insists (p. 154) that "it is most important for the educational system to bring the process of instruction in line with the laws governing the functioning of the brain...in this way, it will achieve its pedagogical aims."

2. Lozanov's principle-1 and previous psycholinguistic research on L2 methodology.

As there has been an ever-increasing body of literature on the psycho- and neuro-linguistic aspects of L2 study, acquisition, and teaching methodology, during the last 2 1/2 decades, attention to Lozanov's principle 1 will be addressed to neurophysical interpretations of the principle. Evaluations of the method's techniques will follow.

Lozanov's first principle, which recognizes the importance of the global participation of the brain during learning is more complete than other psycho- and neuro-linguistic discussions of hemisphericity and L2 acquisition. It recognizes the functional unity of the entire brain during learning and the inadequacy of assuming primarily right and left cortical participation. The importance of a global perspective has been the implication of some neurolinguistic research on L2 learning and teaching. Walsh and Diller (1978), for example, have concluded that "different language teaching methods utilize different locales of the brain and the neural pathways between them in different ways." Likewise, Lamendella (1979:17) in his neurofunctional discussion of why pattern practice fails to equip learners with the ability to automatically access L2 grammatical knowledge during interaction has claimed that:

During mechanical pattern practice drills, many L2 learners may functionally disassociate the speech copying circuit (a functionally autonomous speech processing system which connects Broca's and Wernicke's areas) from higher-level language processing systems (and from the language acquisition process) as an efficient means of performing a repetitious cognitive task not related to communicative interactions (p. 5)

Lamendella concludes by asserting that the successful teaching methods will be those which are so designed to promote the neurofunctional interaction of the various neo-cortical systems allowing for mechanical speech output, and those areas of the brain in which "meanings" are stored.

A more complete survey of the (Western) literature fails to reveal--at this point--consideration of the neuroanatomical structures and functions other than the right (Carroll, 1978) and left (Tsunoda, 1977; Lamendella, 1979) cortexes, and their interaction, alone (Walsh and Diller, 1978; Gilbert, 1980; Vaid and Lambert, 1979)

This left/right dichotomy--by excluding the roles of subcortical components of the limbic system cannot allow for a complete understanding of the neurofunctional control of somatic and psychological behavior during L2 acquisition (See Scovel, 1982: 327).

Conversely, Lozanov's suggestology insists that ultimum learning experience must involve global participation of the brain (and personality) and provides both theory and methodology related to two other neuroanatomical dimensions: the anterior/posterior--and (most importantly) the superior/inferior contrasts.

3. Superior/inferior view of the brain

The neurofunctional interactions of the brain stem with the neo-cortex and the limbic system are believed to be involved in most kinds of learning (Maggio, 1971; Whitaker, 1971). More specifically, the integrated functioning

of the hippocampus and the amygdala with the cerebral cortex, the reticular core and the hypothalmic nuclei provide an adequate degree of attention, motivation and reinforcement so that a sort of selecting activity is maintained on all the incoming stimuli. What is created is a filtering process, by which some stimuli will be perceived and others irrelevant. The well-documented emotions component of the filtering process (Maggio, 1972; Isaacson, 1982 cf. Krashen) comes primarily from the amygdala--among the structures of the reticular-limbic system. The affective evaluation of the input signals results from the proper functioning of the amygdala (Maggio, 1971: 62-3). REception of affectively important or emotionally charged information by the sensory cortical structures will subsequently involve the limbic system, thereby facilitating attention and motivation and, consequently learning (Machado, 1984; Rappaport, 1971 in Rose, 1985).

To press Lozanov's point, providing L2 instruction which takes into consideration the neuropsychological functions of the limbic system--by providing novel, pleasant, emotionally-charged L2 stimuli--should involve a number of subcortical functions (encoding, storing, retrieving) facilitate passage of stimuli through "the filter," and thus, facilitate learning and memory.

Suggestopedy's techniques attempt to create long-term memory traces by providing stimuli which involve the emotion management, and consequently the attention-creating areas of the brain.

One such teaching technique involves the tripartite repetition of each lesson's material by the teacher during the seance and concert phases of the lesson. Each line is presented orally with a different information and voice

level. The tone of voice is one of atonic exaggeration and bears no necessary connection to the meaning of word groups as such. The loudness or softness of the voice and the quality of the suggestion (declarative, subtle, authoritative, provide variety, contrast (Bancroft, 1978: 106) and final associations for the material.

This seance part of the lesson is immediately followed by the passive, concert phase of the lesson. During this phase, students listen to a series of pieces of baroque music over which the teacher acts out the lesson once again, with an emotional, theatrical intonation and students meditate on the text. As the texts are comprised of pleasant, cognitively authentic material which is expected to be affectively important to students, they are expected to become emotionally involved with it (Bancroft, 1978: 107; Lozanov, 1982). Next, by imagining the scene presented by the material, and by meditating on it while listening to the baroque music (a right cortical, and emotion/attention-involving activity), students are associating pleasant, emotional content with the material being learned. Thus, they are involving the hippocampus: the mostly gray structure of the temporal lobe, responsible for the genesis of emotion, (Isaacson, 1982:62; Maggio, 1971:63) and the amygdala, the gray structure of the limbic system also involved in production of emotion and attention (Isaacson, 1982: 134; Maggio, 1971:62). In sum, the neural circuits between the sensory cortex and the limbic system are actively solicited and exploited. This is recognized as important to the creation of the ultimum learning experience because "some of these subcortical structures are capable of <u>controlling</u> the highest cortical functions" (Maggio, 1971: 73), i.e.,

functioning as filters for incoming stimuli, and, effecting the permanence of new memory traces in the cerebral cortex of both hemispheres. The inadequacy of traditional teaching methods in producing L2 fluency is, furthermore accounted for, as they address only the cortical structures and the left hemisphere of learners (Lozanov, 1982: 151).

4. Lozanov's Principle

Having briefly discussed two praxis-based aspects of Lozanov's method in relation to anatomical features of the brain and localization of functions, we will now turn to Lozanov's second principle, i.e., that learning should be structured in such a way as to exploit the brain's "Naturally recurring simultaneous processes of analysis and synthesis (Lozanov, 1982: 150-53). Lozanov (1982: 151) asserts this second principle primarily on the basis of "the simultaneous and indivisible 'naturalness' of the connectedness of the physiological processes to their psychological expression.

One way in which we may discuss the relationship--in accordance with learning and memory--is by the electrophysiological model of learning and memory (See Hebb, 1949: Deutsch, 1969; Fessard, 1961)--its ability to account for physiological change resulting from learning, and, the psychological expression of this neural change, which may be related to the creation of or augmentation of psychological schemas and frames of reference.

a. The Neurophysiological level

Physical change underlying the processes of learning and memory occurs through use (or disuse) of the brain and essentially involves the transmission efficiency of neural synapses. Deutsch (1969) demonstrated that memory registration and the permanent storage of information can be influenced.

Stimulation of the cerebral cortex can initiate a reverberating electrical response in a self-propagating, circular pathway of active neural processing. These closed loops of activated neurons called "cell assemblies" and the "phase sequence" resulting from the connection of several assemblies are neuronal patterns corresponding to an acquired skill act (Maggio, 1971: 87). A 'learning experience' may mean that a new engram or neuronal pattern has been created; in which case, an electrical impulse travels around a circuit several times and becomes facilitated to transmit an electrical impulse after stimulation (see Fessord, 1961). In regard to (2) above, a structural change in this neuronal web is regarded as indispensible for "the consolidation of a memory trace," or the creation of a durable memory. Conversely, if some sort of "interference" is introduced before this second, chemical activity can take place, the memory will not be a durable one (Maggio, 1971: 90-91). This structural and functional alteration of the synapses of brain cells, taking place both during and after learning, facilitates the acquisition of material to be learned which may employ already established neural routes. This is the neurological basis of "associative learning." Jaffe, (1969) explains:

"The associative type of learning consists of the establishment of functional synaptic connections between units of different gnostic fields representing the convergence of messages originating from the neurons that represent each of the paired stimuli onto plurimodal associative neuronal units (In Maggio p. 144-45.)

b. The psychological level

These aspects of associative learning on the neurological level may correspond to associative learning of verbal material--on a psychological level--as described by Chafe (1977: 42-2). Chafe describes knowledge which is verbalized (as in utterances) as being organized and stored in propositional and 'nonpropositional form,' in a series of chosen, internalized schemata, frames and categories. The aforementioned are experientially-created internal representations of particular prototypes (i.e., ideas, concepts, and external objects). This experiential content which has accumulated in memory, must in part at least be stored in analogic form. When an individual receives an utterance, that utterance (in its context), in being analyzed and synthesized, undergoes a process where the hearer breaks down the utterance, and tries to match the experiential content of its ideas with the prototype contents of his or her internal available categories. This matching process must be taken in part in analogic terms since the match is likely to be a matter of degree and there may be in fact, no category whose prototype is matched very closely (Chafe, 1977: 49-50). When a hearer possesses inadequate prototypes with

which to match incoming verbalized knowledge, old ones may be augmented and new ones created through association--as the hearer attempts to decode the message.

I shall assert here that the analytical-synthesis psychological process described by Chafe, as it relates to the association of new knowledge with previously existing schemata, frames and categories, may correspond on the psychological level to the electrophysiological, neural processes involved in learning and memory described by Hebb, Fessard, and Deutsch. Crudely restated, engrams may represent on the neurological level, the prototypes represented on the psychological level in the process of associative learning. Furthermore, if these premises are to be accepted, we might expect that teaching methodology which seeks to exploit associative learning by presenting new information (i.e. L2 stimuli) in terms of schemata, etc, which learners are likely to already hold, (and which include affectively important prototypes) will take advantage of pre-existing memory traces -- and will thus provide for the fastest, most efficient and most durable learning. These are the points which I believe Lozanov is trying to make in his second and third principles of suggestopedy when he insists on exploiting the learners abilities to analyze and synthesize simultaneously incoming new material, as well as the intuitive powers of the learner.

Briefly, I shall mention that these principles are exploited in his method's uses of acting, role-playing, translation, and pseudo-identities.

Summary and Conclusion

In the first part of this paper I demonstrated that the psycholinguistic L2 teaching methodology of Dr. Georgi Lozanov has received both favorable and unfavorable evaluations from well-known scholars is the field of language acquisition. It was suggested that some suspicious views by Western scholars may be due to the paucity of interpretable scientific evidence for the method's claims.

The second half of the paper reviewed Lozanov's principles underlying his method in light of current literature on learning and memory. The conclusion here, is that Lozanov's principles--upon which his method's techniques are founded--are apparently valid and accurate in light of current theory on the nature of learning, language acquisition, and memory. While the claims that the method induces "superlearning" or "hypermnesia" need more substantial empirical validation, theory on learning may suggest that Lozanov's method should achieve better than average results in learning.

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